

TABLE 27

Domestic R&D paid for and performed by the company, by industry and company size: 2020

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)										
		All companies	10-19 ^a	20-49	50-99	100-249	250-499	500-999	1,000-4,999	5,000-9,999	10,000-24,999	25,000 or more
All industries	21-23, 31-33, 42-81	466,162	4,019	10,970	11,177	22,132	18,067	18,458	75,917	42,451	72,827	190,145
Manufacturing industries	31-33	264,596	1,556	5,814	6,349	12,053	8,999	11,309	38,379	31,160	59,081	89,896
Food	311	4,985	18	79	93	114	181	233	461	976	1,939	891 i
Beverage and tobacco products	312	1,056	7	8	23	18	14	16	41	330	74	524
Textile, apparel, and leather products	313-16	812	5	6	11	34	8	50	138	278	94 i	188
Wood products	321	183	0	8	13	11	11	9	38	89	5	0
Paper	322	927	0	5	6	33	12	6	182	67	338	279
Printing and related support activities	323	282	*	8	14	65 i	18	14	58	33	72 i	0
Petroleum and coal products	324	1,222	8	15	119	15	14	37 - 55	71	15	0 - 327	582 - 931
Chemicals	325	89,403	827	2,973	2,852	6,431	3,628	4,220	11,840	10,978	27,624	18,030
Basic chemicals	3251	2,523	4	173	165	214	94	156	1,040	281	378	18
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,161	1	16 - 27	39	77	67	90	87 - 97	0	771	0
Pesticide, fertilizer, and other agricultural chemicals	3253	775	17	17	31	27	11	5	224 - 232	0	432 - 445	0
Pharmaceuticals and medicines	3254	80,858	776	2,655	2,528	5,910	3,296	3,837	9,592	10,509	24,072	17,684
Soap, cleaning compound, and toilet preparation	3256	2,476	12	44	25	137	45	53	463 i	188	1,310	200 i
Paint, coating, adhesive, and other chemicals	3255, 3259	1,610	18	56 - 67	64	66	114	79	426	0	646 - 660	129
Plastics and rubber products	326	2,607	4	108	120	236	167	355	1,031	174	181	232
Nonmetallic mineral products	327	1,619 i	1	0 - 134 i	31	112	0 - 195	107	161 - 173	204	0	660 - 1,005 i
Primary metals	331	795	0	104	52	60	28	36	273	222	21	0
Fabricated metal products	332	3,336	194	416	517	679	296	294	679	145	116	0
Machinery	333	15,071	78	534	768	993	664	572	1,852	3,404	3,460	2,745
Agricultural implement	33311	1,760	1	22	0 - 698	45	0 - 583	57	141	383 - 431	0	0 - 1,112
Semiconductor machinery	333242	4,121	5	15	38	41	42	173 i	720	1,258	1,829	0
Engine, turbine, and power transmission equipment	3336	1,523	0	17	34	59	41	53	51 i	1,268	0	0
Other machinery	other 333	7,667	72	480	0 - 698	848	0 - 583	288	941	446 - 495	1,631	1,632 - 2,746
Computer and electronic products	334	88,505	183	833	852	1,413	2,449	2,525	12,987	8,934	14,998	43,332
Communications equipment	3342	11,107	2 - 25	0 - 354	0 - 244	0 - 329	407	0 - 1,148	2,081 - 2,240	1,479 - 1,803	0	4,557 - 7,040

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Semiconductor and other electronic components	3344	40,801	45 - 68	0 - 354	311	567	1,505	879	4,845	3,838	13,676 - 13,730	14,702 - 15,139
Navigational, measuring, electromedical, and control instruments	3345	11,012	15 - 115	480	298	519	425 - 486	499	3,900	921 - 1,245	493 - 601	3,058 - 3,382
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,606	0 - 13	157	96	225	169	252	1,477	0	215 - 228	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,561	15	0 - 33	42	78	61 - 123	0 - 248	183	351 - 930	0	2,253 - 2,577
Other measuring and controlling device	other 3345	4,844	0 - 89	291 - 324	160	216	161 - 196	0 - 248	2,240	314 - 572	276 - 375	805
Other computer and electronic products	other 334	25,585	0 - 89	0 - 354	0 - 244	0 - 329	49 - 111	0 - 1,148	2,003 - 2,160	2,371	667 - 819	18,093 - 20,382
Electrical equipment, appliances, and components	335	4,492	47	182	135	300	227	828	1,660	164	619	331
Transportation equipment	336	30,232	33	139	165	345	701	1,313	3,188	2,651	4,926	16,770
Motor vehicles, bodies, trailers, and parts	3361–63	19,522	0 - 24	44	15	124 - 176	338	590	2,125	1,937	2,800 - 3,461	10,809 - 11,470
Aerospace products and parts	3364	9,111	9 - 19	82	65	169	309	570	695	435 - 449	1,466	5,301
Aircraft, aircraft engine, and aircraft parts	336411–13	8,281	10	75 - 83	60	107	243	225	349	435 - 449	1,466	5,301
Guided missile, space vehicle, and related parts	336414–15, 336419	831	0 - 8	0 - 7	5	63	66	345	346	0	0	0
Military armored vehicle, tank, and tank component	336992	4	0 - 4	0 - 4	0 - 4	1	0 - 3	*	0	0	0	0
Other transportation	other 336	1,594	0 - 24	7 - 14	80 - 87	0 - 51	50 - 55	153	369	264 - 280	0 - 661	0 - 661
Furniture and related products	337	492	0	6	37	131	14	20	118	155	11	0
Miscellaneous	339	18,576	150	263 - 397	541	1,063	380 - 576	655 - 679	3,585 - 3,605	2,337	4,281 - 4,609	4,688 - 5,308
Medical equipment and supplies	3391	15,944	131	264	386	776	381	504	2,353	2,179	4,282	4,689
Other miscellaneous manufacturing	3399	2,632	19	0 - 134	155	287	0 - 195	152 - 176	1,232 - 1,252	158	0 - 327	0 - 619
Nonmanufacturing industries	21–23, 42–81	201,566	2,462	5,155	4,828	10,079	9,068	7,149	37,537	11,292	13,747	100,249
Mining, quarrying, oil and gas extraction, and support activities	21	1,121	0 - 7	39	51 - 94	48	56	84	271	0 - 568	0 - 568	0
Utilities	22	224	3	15	0	0	0	15	53	0 - 140	0 - 140	0 - 140

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Wholesale trade	42	1,001	56	250	131	273	120	107	33	3	19	9
Electronic shopping and electronic auctions	454111–12	3,837 - 19,343	3	14	0 - 572	0 - 280	105	2	0 - 568	0 - 1,049	0 - 3,512	0 - 17,731
Transportation and warehousing	48–49	4,954	0	0	81	11	1	38	2,141	9	0 - 2,676	0 - 2,676
Information	51	128,350	695 - 721	1,709	1,335	4,439	6,067	4,543	24,684	7,200	5,124 - 5,157	72,524
Publishing	511	34,516	465	622	546	1,167	500	733	8,610	1,684	1,267	18,923
Newspaper, periodical, book, and directory publishers	5111	60	*	1	6	*	53	0	0	0	0	0
Software publishers	5112	34,456	465	621	540	1,166	447	733	8,610	1,684	1,267	18,923
Telecommunications	517	3,371	0 - 200	0 - 200	51	112 - 179	106	103	89	29	0 - 200	2,684
Data processing, hosting, and related services	518	41,105	24 - 251	849	676	2,543 - 2,577	5,293	2,682	12,312	4,994	2,069 - 2,310	9,399
Other information	other 51	49,358	6	37 - 240	63	524 - 587	169	1,026	3,673	494	1,580 - 1,791	41,518
Finance and insurance	52	12,204	36	11	47	237	0 - 564	510	3,167	1,247	2,477	3,904 - 4,477
Real estate and rental and leasing	53	3,249	0 - 23	9	5	6	0 - 23	21	3,186	0	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	7	0	2	3	2	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	3,242	0 - 23	7	3	5	0 - 23	21	3,186	0	0	0
Professional, scientific, and technical services	54	28,322	1,625	2,974	2,446	4,498	2,159	958	3,187	1,783	2,609	6,083
Architectural, engineering, and related services	5413	2,214	260	284	313	429	238	108	315	120	145	0
Computer systems design and related services	5415	14,293	460	1,431	722	893	1,062	658	2,197	25	2,341	4,503
Scientific research and development services	5417	6,246	853	980	1,096	2,757	371	98	31	4	10	44
Research and development in nanotechnology	541713	126	94	32	0	0	0	0	0	0	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	1,176	252	252	284	308	36	0	0	0	0	44
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,906	504	693	778 - 813	2,415 - 2,450	301 - 336	98	31	4	10	0
Research and development in the social sciences and humanities	541720	38	3	3	0 - 33	0 - 33	0 - 33	0	0	0	0	0
Other professional, scientific, and technical services	other 54	5,570	52	279	315	417	488	94	642	1,634	113	1,536
Health care services	621–23	1,374	8	78	164	291	0 - 285	295	251	4	0 - 18	0 - 285

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Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,429 - 16,934	0 - 32	56	0 - 572	0 - 280	0 - 564	576	i	0 - 568	0 - 1,049	0 - 3,512	0 - 16,303

* = amount < \$500,000; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2017 North American Industry Classification System.

^a The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s):

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2020.